

Protecting People from Motor Vehicle-related Deaths and Injuries:

*Keeping People Safe on the Road –
Every Day*

September 2014



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Preventing motor vehicle injuries and deaths is a CDC “Winnable Battle”

- **Tobacco use**
- **Nutrition/obesity (including food safety)**
- **HIV**
- **Healthcare-associated infections**
- **Motor vehicle crashes**
- **Teen pregnancy**

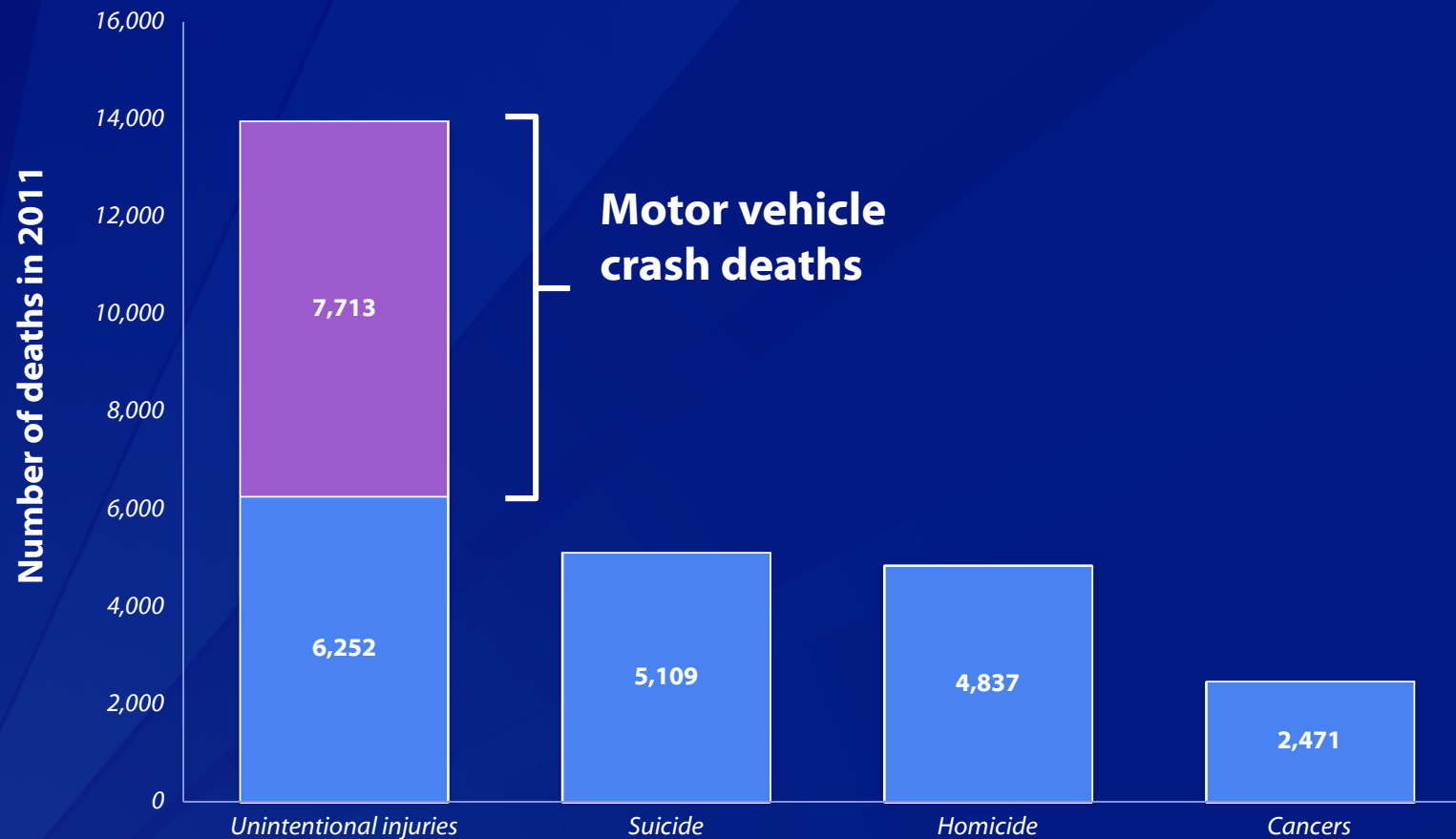
Crashes are the second leading cause of injury death

- **Motor vehicle crashes are the leading cause of death in the first three decades of American's lives**
- **Motor vehicle-related injuries send more than 3.1 million people to hospital emergency departments every year**
- **Motor vehicle crashes killed over 33,500 people in 2012 – that's 90 people every day**

Dept of Transportation (US), National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts: 2012 Motor Vehicle Crashes: Overview. Washington (DC): NHTSA; 2013. <http://www-nrd.nhtsa.dot.gov/Pubs/811856.pdf>

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. www.cdc.gov/injury/wisqars.

Motor vehicle crashes are the leading cause of death for children and young adults (ages 5-24)



Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. (2012). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). www.cdc.gov/injury/wisqars.

Preventing crash-related deaths involves three priority areas



**Seat belts and
child passenger safety**

Teen driver safety



**Alcohol-impaired
driving**

SEAT BELTS AND CHILD PASSENGER SAFETY

Seat belts save thousands of lives each year

- **Seat belts saved an estimated 12,174 lives in 2012**
- **Observed seat belt use still varies widely**
 - From 66.5% in South Dakota to 96.9% in Washington state

If everyone had worn a seat belt on every trip in 2012, **more than 3,031 additional lives would have been saved**

Dept of Transportation (US), National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts : Occupant Protection. Washington (DC): NHTSA; 2014. <http://www-nrd.nhtsa.dot.gov/Pubs/811892.pdf>

Dept of Transportation (US), National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts : Seat Belt Use in 2012—Use Rates in the States and Territories. Washington (DC): NHTSA; 2014 <http://www-nrd.nhtsa.dot.gov/Pubs/811809.pdf>

Primary enforcement seat belt laws increase seat belt use

- **What are they?**

- Primary enforcement seat belt laws allow law enforcement to pull over a motorist solely for not wearing a seat belt

- **Do they work?**

- Yes – states with primary enforcement seat belt laws achieve significantly higher seat belt use than secondary law states

In 2014,
seventeen
states still did
not have a
primary
enforcement
law

Dept of Transportation (US), National Highway Traffic Safety Administration (NHTSA). Traffic Safety Facts: Occupant Protection. Washington (DC): NHTSA; 2014. <http://www-nrd.nhtsa.dot.gov/Pubs/811892.pdf>

Beck LF, West BA. Vital Signs: Nonfatal, Motor Vehicle –Occupant Injuries (2009) and Seat Belt Use (2008) Among Adults—United States. Centers for Disease Control and Prevention. MMWR 59(51); 1691-1686. 2011. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5951a3.htm?s_cid=mm5951a3_w

Insurance Institute of Highway Safety (IIHS). Safety belt and child restraint laws. <http://www.iihs.org/laws/SafetyBeltUse.aspx>

Child passenger restraints prevent serious injury and death

- **Motor vehicle crashes are a leading cause of death for children**
- **Child safety seat use reduces the risk for death to infants (aged <1 year) by 71%; and by 54% for toddlers (aged 1-4 years)**
- **Among children under age 5, an estimated 3,573 lives were saved by child safety seat use from 2002-2012**

Sauber-Schatz, EK; West, BA; Bergen, G. Vital Signs: Restraint Use and Motor Vehicle Occupant Death Rates Among Children Aged 0–12 Years — United States, 2002–2011. Morbidity and Mortality Weekly Report. 2014 Feb 7;63(5):113-8.

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e0204a1.htm?s_cid=mm63e0204a1_w

Department of Transportation (US), National Highway Traffic Safety Administration (NHTSA), Traffic Safety Facts 2012: Children. Washington (DC): NHTSA; 2014. <http://www-nrd.nhtsa.dot.gov/Pubs/812011.pdf>

CDC's Injury Center shares evidence on seat belts and child restraints

Seat Belts

- CDC is providing scientific expertise and consultation, and engaging with stakeholders to increase seat belt use in states



Child restraints

- CDC Vital Signs on child passenger safety
 - <http://www.cdc.gov/vitalsigns/childpassengersafety>
- Describes the issue and highlights what can be done to prevent injuries and deaths among children

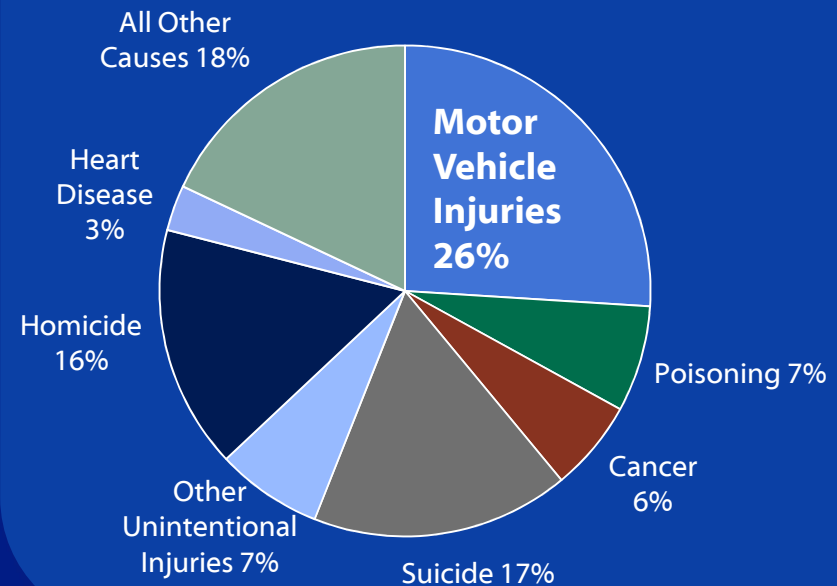


TEEN DRIVER SAFETY

Motor vehicle crashes are the #1 killer of teens

- **Motor vehicle crashes are the leading cause of death for U.S. teens**
 - Almost 2,800 teens ages 15-19 were killed in crashes in 2011
- **Per mile driven, teen drivers aged 16-19 are three times more likely to be in a fatal crash than drivers aged 20 and older**
- **Among teens who died in crashes ~60% were unrestrained**

**Causes of Death for Teens
(ages 15-19, 2011)**



Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS) [Online]. (2014). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). www.cdc.gov/injury/wisqars.
Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2011 on CDC WONDER Online Database, released 2014.
Insurance Institute for Highway Safety. Teenagers <http://www.iihs.org/iihs/topics/t/teenagers/topicoverview>

Graduated Driver Licensing (GDL) saves teen lives

- **What is GDL?**

- GDL gives teens driving privileges in stages, helping new drivers gain experience in low-risk conditions

- **Does it work?**

- GDL reduces motor vehicle deaths and injuries by about 30% among 16 year old drivers

- **All 50 states and DC have GDL**

- However, some states' GDL lack components that make GDL most effective

Williams, AF; Tefft, BC; Grabowski, JG. Graduated Driver Licensing Research, 2010-Present. Journal of Safety Research 43 (2012) 195-203.

Russell, K. F., Vandermeer, B., & Hartling, L. (2011). Graduated driver licensing for reducing motor vehicle crashes among young drivers. Cochrane Database of Systematic Reviews,10, CD003300.

The most comprehensive GDL systems include 5 components

- 1) Minimum age of 16 years for a learner's permit,**
- 2) Mandatory holding period of at least twelve months for a learner's permit,**
- 3) Restrictions against nighttime driving between 10:00 pm and 5:00 am (or longer),**
- 4) Limit of zero or one for the number of young passengers without adult supervision, and**
- 5) Minimum age of 18 years for full licensure**

ALCOHOL-IMPAIRED DRIVING

Nearly 1 in 3 crash deaths involve an impaired driver

- In 2012, 10,322 people died in alcohol-impaired crashes
- In 2012, 20% of the motor vehicle deaths among children aged <15 occurred in alcohol-impaired driving crashes

In fatal crashes in 2012, the highest percentage of drivers with BACs $\geq .08$ g/dL were aged 21-24 (32%) followed by 25-34 (29%) and 35-44 (25%)

Sobriety checkpoints reduce alcohol-impaired driving

- **What are sobriety checkpoints?**

- At sobriety checkpoints, law enforcement officers stop vehicles systematically to assess the driver's level of alcohol impairment

- **Do they work?**

- Yes – checkpoints reduce impaired driving crashes and deaths by a median of 9%

- **What can be done?**

- Local and state law enforcement can use sobriety checkpoints to improve enforcement and deter impaired driving

Zero tolerance laws reduce teen drinking and driving crashes

- **What are zero tolerance laws?**
 - Zero tolerance laws set a lower legal blood alcohol content (BAC), usually between any detectable BAC and 0.02%, for drivers under 21
- **Do they work?**
 - Yes – zero tolerance laws lower fatal crash rates between 9 to 24%
- **What can be done?**
 - States can actively enforce zero tolerance laws and maintain the current minimum legal drinking age at 21

Ignition interlocks keep DUI offenders from offending again

- **What are ignition interlocks?**

- Ignition interlocks are devices installed in vehicles for a period of time following a DUI conviction to prevent people from driving after consuming alcohol

- **Do they work?**

- Yes – use of interlocks reduces the re-arrest rate of convicted DUI offenders by about 70% during the time they are installed

- **What can be done?**

- States can implement ignition interlocks for everyone convicted of a DUI, even on a first offense

To support efforts to keep impaired drivers off the road, CDC's Injury Center will

- **Release the "Evaluation of the State Ignition Interlock Programs"**
- **In partnership with NHTSA, finalize and disseminate "Increasing Alcohol Ignition Interlock Use Promising Practices for States"**

For More Information, Visit...

- **Motor Vehicle Safety:**
www.cdc.gov/motorvehiclesafety
- **Seat Belts:**
www.cdc.gov/motorvehiclesafety/SeatBelts
- **Child Passenger Safety:**
www.cdc.gov/Motorvehiclesafety/Child_Passenger_Safety
- **Teen Driving:**
www.cdc.gov/Motorvehiclesafety/Teen_Drivers
- **Alcohol-Impaired Driving:**
www.cdc.gov/Motorvehiclesafety/Impaired_Driving

Motor Vehicle-related Deaths and Injuries Are Preventable

For more information please contact Centers for Disease Control and Prevention

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Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov Web: www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.



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